

Application Serial No.: 10/820,744
Reply to Office Action dated April 27, 2005

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-11 are presently active in this case, Claims 3, 4, 6, 8, and 9 having been amended by way of the present Amendment.

Claims 7 and 10 were indicated as containing allowable subject matter.

In the outstanding Official Action, Claim 6 was objected to for a minor informality. Claim 6 has been amended as suggested in the Official Action. Accordingly, the Applicants request the withdrawal of the objection to Claim 6.

Claims 3, 4, 8, and 9 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 3, 4, 8, and 9 have been amended to provide antecedent basis for the limitation "the widened flow passage." Accordingly, the Applicants request the withdrawal of the indefiniteness rejections.

Claims 8 and 9 were indicated as containing allowable subject matter if amended to overcome the indefiniteness rejection. As noted above, the Applicants submit that the indefiniteness rejections of Claim 8 and 9 have been overcome, and thus Claims 8 and 9 are believed to contain allowable subject matter.

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Claims 1, 6, and 11 were rejected under 35 U.S.C. 103(a) as being unpatentable over Parkes (U.S. Patent No. 4,127,358) in view of Pask (U.S. Patent No. 3,986,789). For the reasons discussed below, the Applicants traverse the obviousness rejection.

The basic requirements for establishing a *prima facie* case of obviousness as set forth in MPEP 2143 include (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings, (2) there must be a reasonable expectation of success, and (3) the reference (or references when combined) must teach or suggest all of the claim limitations. The Applicants submit that a *prima facie* case of obviousness has not been established in the present case because the cited references, either when taken singularly or in combination, do not teach or suggest all of the claim limitations.

Claim 1 of the present application recites a gas turbine stationary blade comprising, among other features, a plurality of segments each of which includes at least one stationary blade and at least one inner shroud, and which are coupled to one another in an annular form, wherein the segments are assembled in such a manner that a side end face of the inner shroud is connected to that of another inner shroud of an adjacent segment by using a bolt joint, wherein at least one flow passage is pulled out from the discharge port of the cooling air of the stationary blade section, and the flow passage is introduced to a corner section on the side of a front edge of the inner shroud and is extended rearward along a side edge of the inner shroud. Claim 6 recites a gas turbine stationary blade assembly comprising, among other

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features, a plurality of segments coupled to one another in an annular form, wherein the segments are assembled in such a manner that a side end face of one of the inner shrouds in one segment is connected to that of another of the inner shrouds in an adjacent segment by using a bolt joint, and wherein each of the first and second inner shrouds is provided therein with a flow passage that communicates with the discharge port and extends in the corner section and along the second side edge toward the second edge. The Applicants submit that the cited references, either when taken singularly or in combination, do not teach or suggest all of the above claim limitations.

The Official Action cites the Parkes reference for the teaching of turbine vane shrouds with cooling air passages (26, 27). However, the Official Action notes that the Parkes reference does not show adjacent turbine shrouds having bolt joints. The Official Action cites the Pask reference for the teaching of such bolt joints. However, the Applicants respectfully submit that the Pask reference provides no such teaching.

The Pask reference describes a configuration in which vanes (16) each include an inner shroud (18), an aerofoil portion (19) and an outer shroud portion (20). The Pask reference indicates that the edges of the shrouds (18 and 20) abutting against corresponding edges of the shrouds of adjacent vanes to form substantially completely annular shrouds. The Pask reference also indicates that to reduce gas leakage between abutting shrouds a seal is necessary. As can be seen in Figure 3, when two vanes are assembled together, a groove (27) on one vane corresponds with a groove (28) on the abutting shroud portion, and in the

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rectangular section channel thus formed, a sealing strip (29) is retained. Any gas leakage between the shroud portions will press the strip (29) against the upper surface of the edge portions (20), thus providing a seal.

The Applicants respectfully note that the Pask reference does not describe a bolt joint as recited in Claims 1 and 6 of the present application. No such disclosure is present in either column 3, lines 33-35, of the Pask reference or in Figure 3 thereof, which were cited in the Official Action for such a teaching. The Pask reference does not disclose or even suggest a bolt joint, but rather merely indicates that the edges of adjacent shrouds form a substantially complete annular shroud. However, no disclosure is present regarding a bolt joint specifically, and thus no motivation is provided to modify the Parkes reference to include such a feature.

Accordingly, the Applicants respectfully submit that a *prima facie* case of obviousness has not been established with respect to Claims 1, 6, and 11, and therefore the Applicants request the withdrawal of the obviousness rejections thereof.

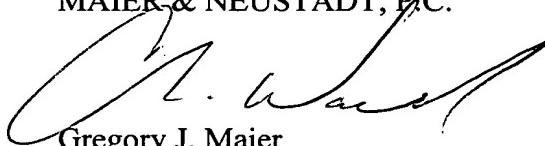
Claims 1-6 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1 and 3-7 of U.S. Patent No. 6,783,323 in view of the Pask reference. The Applicants have submitted concurrently herewith a timely filed terminal disclaimer in compliance with 37 CFR 1.321(c), which overcomes the nonstatutory double patenting rejection. Accordingly, the Applicants respectfully request the withdrawal of the obviousness-type double patenting rejection.

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Consequently, in view of the above discussion, it is respectfully submitted that the present application is in condition for formal allowance and an early and favorable reconsideration of this application is therefore requested.

Respectfully Submitted,

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